

**DRAFT MEETING MINUTES
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH, DETACHMENT CONCORD,
CONCORD, CALIFORNIA
MARCH 1, 2004**

These minutes reflect general issues raised, agreements reached, and action items identified at the Restoration Advisory Board (RAB) meeting for the Naval Weapons Station (NWS) Seal Beach Detachment (SBD) Concord, California. The meeting was held from 6:30 to 9:00 p.m. on March 1, 2004, at the Willow Pass Community Center in Concord, California. Agreements and action items are described by topic under Sections I through VIII and are summarized in Section IX. A list of participants and their affiliations is included as Attachment A, and the meeting agenda is included as Attachment B.

I. WELCOME, INTRODUCTION, AND PUBLIC COMMENT

Welcome and Introductions

The RAB co-chairs, Margaret Wallerstein, PhD, (Navy) and Mary Lou Williams (Concord resident), called the March 1, 2004, RAB meeting to order and initiated a round of introductions for participants. Ms. Wallerstein reviewed the meeting agenda and asked whether there were any comments on or additions. The RAB agreed that the March 2004 agenda was sufficient.

Public Comments

Ms. Williams opened the floor to public comment; there were no public comments.

April 5, 2004, RAB Agenda Approval

Ms. Wallerstein reviewed the proposed April 5, 2004, RAB meeting agenda and asked for comments. Igor Skaredoff (RAB member) requested additional time on the April 2004 RAB agenda to discuss the Record of Decision (ROD) for the Site 1 Tidal Area Landfill. Mr. Skaredoff would like to hear the Navy's responses to the comments provided on the ROD in a February 2, 2004, letter written by Patrick Lynch (Clearwater and Associates, a Technical Assistance Grant [TAG] recipient). Ms. Wallerstein stated that the Navy is preparing a response to comments submitted in the February 2, 2004 letter, and that the Navy anticipates that the Site 1 ROD will be signed by the Navy and the U.S. Environmental Protection Agency (EPA) headquarters in time for the April 5 meeting. She added that many of the issues that were raised in the letter and during the February 2004 RAB meeting are related to groundwater, which will be addressed in an upcoming study. Mr. Skaredoff stated that he was uncomfortable moving forward with the ROD without resolving some of the issues put forth in the letter and would like Mr. Lynch to have time to review the Navy's response to comments before the Tidal Area ROD is signed. He suggested that transparency is important for the public record on the ROD.

Ray O'Brien (RAB member) asked Mr. Skaredoff if he would accept that the Site 1 ROD is being signed by EPA and Navy headquarters. Mr. Skaredoff replied that certain items have not been resolved at this point and questions have been left unanswered for the RAB. Mr. Skaredoff said that he sent the RAB an e-mail on February 20, 2004, discussing the transparency questions that were developed from the TAG presentation during the February 2004 RAB meeting. Mr. Steve Tyahla (Navy) said that the Navy is responding point by point to the TAG letter on the Site 1 ROD. The responses to the TAG comments are not ready for distribution, but they will be available soon.

Mr. O'Brien asked whether it was appropriate for the community RAB members to vote on their acceptance of the Site 1 Tidal Area Landfill ROD, and suggested that the Navy was not respecting the community in moving forward on the ROD without resolving all community concerns, and inquired about the role of the RAB if community concerns were not addressed. Ms. Wallerstein replied that the role of the RAB is to receive community input in the cleanup process and suggested that the Navy has and will continue to be responsive to public concerns. Mr. O'Brien asked whether the Navy would delay the date for the ROD signature to allow the RAB to review the responses to Mr. Lynch's comments. Ms. Wallerstein responded that the ROD signature would not be delayed. Mr. Skaredoff said that he does not want the Site 1 ROD signed before the RAB can discuss the issue further. Mr. Tyahla responded that the Navy has considered community acceptance while developing the Site 1 ROD. The Navy accepted additional comments by Mr. Lynch beyond the comment period, which are currently being addressed.

Mr. Lynch indicated that the bulk of his comments were addressed during the February 2004 RAB meeting and that the positions of the Navy and agencies were clear at that meeting. Mr. Skaredoff said that he would accept the Site 1 Tidal Area Landfill ROD being signed if Mr. Lynch's comments have been adequately addressed, but he emphasized that the responses to comments being prepared must address the unresolved issues. Mario Menesini, Ph.D. (RAB member) concurred with Mr. Skaredoff.

Laurent Meillier (San Francisco Bay Regional Water Quality Control Board [SFBRWQCB]) said that the SFBRWQCB would not sign the Site 1 ROD addressing the containment. Board Staff will issue a letter stating their concurrence with the remedy, however abstaining from signing the document due to essential missing statements. He suggested that the Site 1 ROD Containment needs to acknowledge the 1995 SFB Basin Plan as an applicable or relevant and appropriate requirement. Furthermore, the Navy needs to state that they are responsible for the potential groundwater quality impacts of the Tidal Area Landfill leachates. He also suggested that contaminants of concerns found in leachates generated by the Tidal Area Landfill shall meet State and Federal criteria for the protection of human and ecological health prior to exiting the Site 1 footprint.

Overall, SFBRWQCB has identified several issues that the Navy will address in the groundwater monitoring phase, but agrees that a containment cap is the appropriate remedy for the site. Phillip Ramsey (EPA) said that all of the attorneys from the various agencies who have reviewed the Site 1 ROD are moving forward with a workable solution. Mr. Skaredoff said that he is not comfortable since the SFBRWQCB is not signing off on the document. The following groundwater study will comply with the applicable regulations that have been in place since the 1960s. Mr. Menesini said that the best case for protection of the environment will be credible engineering for the cap, and the worst case is to leave it as is, uncapped. Mr. Meillier responded that excavation and removal of the landfill comprise his best-case scenario, but that he supports the proposed remedy, with his expectations that the groundwater issues will be appropriately addressed in the future. Mr. Skaredoff summarized that the agencies generally agree with the proposed containment remedy and that future monitoring will identify and address any problems. A formal vote was not held but the RAB expressed its concurrence.

Action Item

- The Navy will distribute responses to TAG comments.

Ms. Wallerstein called for a vote to approve the April 5, 2004, RAB agenda. Mr. Skaredoff moved to

approve the agenda, and Mr. Menesini seconded the approval.

Review of the 2004 RAB Presentation List

Ms.. Wallerstein oriented the group to a handout with the proposed RAB agendas for 2004 (Attachment C) and said that she would update and distribute the handout for each future RAB meeting. Mr. Ramsey asked about the order of the Litigation Area Feasibility Study and Data Gaps reports, and said that they should remain on schedule together, because they are related.

Ms. Wallerstein said that the Navy wanted to make presentations on documents once they are closer to being distributed to the RAB. Mr. Tyahla said that there would be an effort made so that those documents remain on track with each other.

Action Item

- Ms.. Wallerstein will update the proposed 2004 RAB presentation schedule and distribute it to the RAB for review each month.

II. JANUARY AND FEBRUARY RAB TRANSCRIPT APPROVAL AND UNRESOLVED BUSINESS

Ms. Williams asked for comments on the January and February 2004 RAB transcripts. The group did not offer any comments, and Ms. Williams announced that the January and February 2004 RAB transcripts are final. Ms. Wallerstein asked whether there was any other unresolved business to address; no other unresolved business was raised.

III. COMMITTEE REPORTS AND ANNOUNCEMENTS

RAB Update

Ms. Williams introduced the newest RAB member who was voted onto the board at the February 2004 meeting, Greg Glaser. Ms. Williams welcomed him to the RAB and gave him the orientation binder for his review.

Navy Update

Ms. Wallerstein announced that Captain Mirick has left Seal Beach and was replaced by Captain Fowler, who will take over in March 2004. Ms. Wallerstein said that she gave Captain Fowler a RAB orientation binder.

Ms. Wallerstein also said that the replacement pages to the RAB bylaws are available for the RAB to add to the orientation binders.

Ms. Wallerstein also announced that the Navy and EPA attended the Kirker Creek Watershed Festival in Pittsburg, California, on February 20, 2004, and hosted a booth on the Installation Restoration Program at NWS SBD Concord.

IV. REMEDIAL PROJECT MANAGERS (RPM) UPDATE

Navy Update

Mr. Tyahla reviewed the RPM monthly update handout that was distributed during the meeting

(Attachment D). Mr. Tyahla reviewed February 2004 activities that included the following:

- An RPM meeting on February 18, 2004.
- Distribution of the Final January 2004 RPM meeting minutes.
- Navy and EPA attendance of the Kirker Creek Watershed Festival event in Pittsburg, California, on February 20, 2004. A few community members signed up to receive more information about the cleanup at NWS SBD Concord, and many people stopped by the booth to ask questions about the environmental cleanup.
- A Navy agency site visit on February 23, 2004 to introduce Tidal Area Sites 1, 2, 9, and 11 to an EPA hydrogeologist.
- A meeting with the agencies on February 24, 2004, to discuss the recently collected field data from Solid Waste Management Unit (SWMU) sites 2, 5, 7, and 18, and proposed additional sampling at IR Sites 27 and 29.
- The addition of an 8-pound, 11-ounce healthy daughter to the Tyahla family.

In addition, he provided the following detail on IR Site 13. As previously reported to the RAB, at this site, there have been some low-level detections of perchlorate in groundwater (2 micrograms per liter [µg/L] is the maximum detection). At the RPM meeting on February 18, the Navy and agencies discussed a plan for collecting additional samples at that site, including the addition of four groundwater monitoring wells and four quarters of additional groundwater sampling to confirm previous results and to delineate the extent of the plume.

Due to an agenda scheduling overrun, EPA and SFBRWQCB's brief RPM updates occurred after the Litigation Area presentation, at the end of the RAB meeting.

EPA Update

Mr. Ramsey reported that EPA sent Beverly Freitas (Navy Real Estate) a letter discussing concerns regarding the treatment of lead-based paint (LBP) that was described in the Environmental Baseline Survey (EBS) for portions of the Inland Area. EPA does not believe the proposed remedy is protective and is requesting an update on Navy actions that have been conducted to date to address the issue. The RPMs plan to schedule a meeting to discuss the LBP concerns. EPA is requesting that the Navy identify and possibly remove LBP basewide.

SFBRWQCB Update

Mr. Meillier provided an update on the SFBRWQCB activities that occurred during February 2004, which include:

- SFBRWQCB hosted a meeting on February 11, 2004, with all of the agencies involved in reviewing the Litigation Area Feasibility Study (FS) to discuss agency comments on the document.
- During the February 18, 2004, monthly RAB meeting, SFBRWQCB suggested that the Navy locate new monitoring wells in the center of Site 13.
- SFBRWQCB attended an RPM Underground Storage Tank (UST) meeting on February 19, 2004. The UST RPMs are currently working on an easement with Chevron on remedial action subsite (RASS) 3 for cleanup of total petroleum hydrocarbons (TPH). The Navy has contacted Chevron and is awaiting a response.
- SFBRWQCB attended the Tidal Area site visit on February 23, 2004.
- SWBRWQCB attended a Meeting on February 24, 2004 to discuss results of the SWMU Sites 2,

5, 7, and 18 and proposed additional sampling for Sites 27 and 29.

- ➔ Board Staff recommended sampling contaminants of concern (including total petroleum hydrocarbons [TPH]) in groundwater at Site 27.
 - ➔ Board Staff recommended adding explosives and emergent chemicals sampling at Site 29. Board Staff stated that there was a difference in the origin of the parent material between N-nitrosodiphenylamine (Otto fuel) and N-nitrosodimethylamine (rocket fuel degradation product emergent chemical).
 - ➔ Recommended a better integration between underground storage tank and RPM programs at SWMU site due to consequent metal and TPH contaminations detected at the site during the excavation of IA-12A.
- SFBRWQCB provided the Navy comments on UST groundwater monitoring reports, the Site 13 sampling and analysis plan (SAP), and the recent groundwater sampling at Site 1 during February 2004.

V. TIDAL AREA SITES 2, 9, AND 11 UPDATE

Mr. Tyahla reviewed the chronology of the Remedial Investigation (RI) for Tidal Area Sites 2, 9, and 11, as follows:

- August 8, 2003: The Navy distributed the revised draft final Tidal Area RI and recommended no further action.
- October 2, 2003: The EPA sent a letter requesting the document be considered a draft RI rather than a draft final RI.
- October 9, 2003: The Navy replied to the EPA letter and agreed with the request to consider the Tidal Area RI to be a draft.
- October 16, 2003: The SFBRWQCB issued a letter and comments on the RI.
- October 30, 2003: The EPA issued a letter and comments on the RI.
- November 20, 2003: The RPMs met to discuss the agency comments on the RI.
- January 15, 2004: The Navy issued final minutes for the meeting on the November 20, 2003.
- January 29, 2004: The Navy issued draft responses to agency comments (RTC) on the draft RI.
- February 23, 2004: The RPMs conducted a site visit to Tidal Area Sites 1, 2, 9, and 11.

Next Steps

- The Navy will finalize and distribute responses to comments on the draft RI, and will develop a SAP for additional field work proposed at the site. The draft SAP is due in June 2004.
- After field work is completed, the Navy will prepare a draft final and final RI and ecological risk assessment (ERA) for the site.

Mr. Skaredoff asked whether the additional sampling could lead to a revised recommendation for the site. Mr. Tyahla replied that additional action is possible if the additional sampling indicates the presence of elevated areas of mercury; if no elevated detections are found, the recommendation will likely remain unchanged. Future recommendations for the site will be based on the results of the additional study and previous analytical results.

VI. AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY UPDATE

Libby Levy (Agency for Toxic Substances and Disease Registry [ATSDR]) provided an update on the

public health assessment that is in the initial stages for NWS SBD Concord. ATSDR issued a letter to the Navy to summarize its concerns after the site visit in January 2004 (Attachment E). Ms. Levy reviewed the main points of the letter, which include:

- **Soil contaminants becoming airborne from dirt bike riders:** ATSDR is concerned about bike riders trespassing in RASS 4 of the Litigation Area being potentially exposed to airborne contaminants. ATSDR is requesting a status report of Navy actions to minimize trespass.
- **Windblown dust from Site 22:** ATSDR is concerned with the possible exposure to arsenic in airborne dust from Site 22 that would cross into the residential areas and the Concord High School property. ATSDR is currently reviewing all of the data on Site 22 and will make a recommendation for the dust problem once all of the research on the site has been completed.
- **Volatile Organic Compounds (VOC) and Petroleum Hydrocarbons in Groundwater at SWMU Sites 2, 5, 7, and 18.** ATSDR is reviewing whether contaminated groundwater at SWMU Sites 2, 5, 7, and 18 is being tapped by downstream users for irrigation, including the golf course and possible private irrigation wells.
- **Beef Cattle Grazing on Inland Area Property.** ATSDR is reviewing whether there is a public health concern with the beef cattle that are grazing in the Inland Area, especially in areas with elevated levels of arsenic in soil.
- **Secondary issues:** Secondary, lower-priority issues that are being reviewed by ATSDR include:
 - Environmental Baseline Survey for housing
 - Potential exposure of mosquito abatement workers to chemical contamination in the Litigation Area
 - Potential contamination in fish and ducks harvested on or near the station
 - Potential contamination of surface water that drains into Suisun Bay
- **Community Concerns.** The following community concerns were raised to ATSDR for consideration:
 - Transshipment of spent nuclear fuel
 - Wood from dunnage possibly treated with pentachlorophenol used by community members to build fences
 - Other industrial impacts
 - Impacts to health and controlled burns
 - Past health effects from the 1944 explosion
 - Base Realignment and Closure and future land use issues, particularly related to the Site 1 Landfill, and whether the base will be closed
 - Former copper smelter in the Tidal Area

Mr. Glaser asked if respiratory studies had been conducted on the Site 22 neighbors. Ms. Levy stated that ATSDR only reviews existing data and makes recommendations. ATSDR does not conduct its own sampling. Mr. Tyahla said that no respiratory studies have been conducted to date; however, concentrations in soil at Site 22 are well below levels considered protective for inhalation of residential

dust. Additional soil and groundwater sampling at Site 22 is planned for April 2004. Once the data are in from the April 2004 Site 22 sampling, ATSDR will review it before making its recommendations.

Ms. Levy said that the ATSDR team in Atlanta, Georgia, is developing a fact sheet that will be distributed to the community in the middle of April 2004. The fact sheet will introduce ATSDR and its activities at NWS SBD Concord. It will also provide a timeline of the distribution of the ATSDR NWS SBD Concord recommendations and the public comment period. Ms. Levy also said that she would provide the RAB frequent updates as ATSDR continues its site review.

VII. NEW RAB MEMBER

The RAB held an executive session during a RAB meeting break and voted to accept Kevin Cornish's RAB application and appoint him as a new RAB member. Ms. Wallerstein welcomed Mr. Cornish to the group and provided him with a RAB orientation binder.

VIII. TAG PRESENTATION ON THE LITIGATION AREA

Mr. Lynch provided a review and comment on the Litigation Area 5-Year Review assessment report. His presentation and comments are summarized in Attachment F. Comments and questions on the presentation are presented below. The Navy agreed to provide a response to those comments, even though the 5-year review assessment report was finalized in May 2003.

Mr. Skaredoff asked for clarification on why the assumption of dry food matter used in risk calculations would underestimate, rather than overestimate, risk to the black rail (a bird found at the site). Mr. Lynch explained that the calculation was underestimated by a factor of 3. The Navy will provide a response to this comment once the data are reviewed.

Mr. Skaredoff also commented on the cost of remediation, which is estimated at about \$1 million for each remediated acre of land. Mr. Lynch responded that it has been a challenge to establish an appropriate background site for comparison, as the site is unique and has a high habitat value.

Mr. Menesini asked whether a survey was conducted for invertebrates at the site. Mr. Lynch explained that an invertebrate survey was conducted as part of the initial monitoring plan at the site but that it was not continued during each year of subsequent monitoring.

Mr. Ramsey said that the RPMs are discussing appropriate future cleanup levels for the Supplemental feasibility study (FS). Mr. Skaredoff pointed out that the values that were used during the initial cleanup are about 10 times higher than the effects range-median (ER-M) levels that are proposed as cleanup targets for the Supplemental FS. Ms. Joanna Canepa (TtEMI) clarified that the science has evolved since the original cleanup was proposed, and that the study developing the ER-Ms was first published in 1991, after the ROD. She added that the monograph that presented the ER-M specifically states that the values are not intended to be used as cleanup targets.

Mr. Menesini asked whether any gastric availability studies were conducted at the site. Ms. Canepa replied that bioassays were conducted and tissue samples were collected and analyzed, but no gastric availability studies were conducted.

Mr. Tyahla added that Mr. Lynch based his comments on the draft final version of the 5-Year Review Assessment Report, and that in the final version, the Navy agreed to continue monitoring at the site. The Navy is also currently working with the agencies to develop a revised monitoring plan. The Navy has agreed to collect groundwater samples as part of the data gaps study and will present the results in a report planned for June 2004.

Mr. Ramsey mentioned that the railroad did not fully complete cleanup on a portion of RASS 2. EPA has suggested that the Navy needs to take action to persuade the railroads to complete remediation so that other areas do not become recontaminated. He also pointed out that the soil pile formerly at Chemical and Pigment Company has been removed by the Department of Toxic Substances Control (DTSC), and that the natural resource trustees decided at the time of the initial cleanup to not undertake an aggressive removal because of the presence of the salt marsh harvest mouse, an endangered species; the biological opinion limited the extent of the initial remediation.

Mr. Skaredoff asked about the size of the area of RASS 4 where the unusual looking soil was observed and about the distressed vegetation in RASS 1. Mr. Ramsey explained that the distressed vegetation and the RASS 4 soil areas are both small portions of the site, where additional sampling was conducted as part of the data gaps study to address whether contamination was present. Results will be presented in the draft data gaps study, planned for submittal in June 2004.

TAG Recommendations for the Litigation Area: Mr. Lynch presented his recommendations on the Litigation Area to the RAB. For reference, the TAG Litigation Area 5 Year Assessment Report is included as Attachment F, and Mr. Lynch's presentation is included as Attachment G. The Navy concluded that RASS 1 and 3 need additional work. Mr. Lynch stated that the Navy also needs to consider additional monitoring at RASS 2 and 4. Mr. Tyahla added that the final 5-year review assessment included an agreement to conduct additional monitoring at the Litigation Area. A Supplemental FS for portions of RASS 1 and 3 is currently being developed to recommend possible future actions at those sites. The Navy also has collected samples to address data gaps identified for groundwater and soil that includes additional sampling in portions of RASS 1, 2, 3, and 4.

Mr. Ramsey stated that the salt marsh harvest mouse is an animal of concern because excessive remediation can harm their habitat. Ms. Canepa said that the Navy is currently collecting additional groundwater samples to characterize the site.

Mr. Lynch agreed to send his presentation on the Litigation Area to the Navy for distribution to the RAB.

Mr. Meillier stated that Board Staff does not agree with the following finding made by Mr. Lynch. CRC's review indicates that this exposure was underestimated by a factor of three because the "prey ingestion rate" was not correctly calculated ("dry matter" was used instead of "fresh matter"). This error would significantly impact the conclusions of the 5 year review Baseline Ecological Risk Assessment (BERA). This statement is illogical and incomplete. Exposure is normalized over a body weight ratio such as: $\text{Exposure} = (\text{Arithmetic Mean Contaminant Concentration} \times \text{intake rate} \times \text{exposure factor}) / \text{Body weight}$. The intake rate could be based on dry matter or wet matter as long as it reflects the daily ingestion concentration of a particular contaminant. Furthermore, if fresh matter was used for a given contaminant concentration originally integrated in a dry matter ingestion rate, it would have the effect of diluting the exposure.

Action Item

- Mr. Lynch will send the TAG Litigation Area Update presentation to the Navy for distribution to the RAB (see Attachment G).

IX. NEXT MEETING AND ACTION ITEMS

The next RAB meeting will occur on April 5, 2004 from 6:300 to 8:30 p.m. The meeting location has changed to the Martinez Adult School Room #20 600 F Street Martinez, CA 94553

The following action items and agreements were generated during the March 1, 2004 RAB meeting:

#	Action Item	Target Date for Completion	Completion Date (or Status)
1	The Navy will send the response to TAG comments on the Tidal Area Landfill ROD for RAB review.	3/12/04	
2	Ms. Wallerstein will update the proposed 2004 RAB presentation schedule and distribute it to the RAB for review each month.	Ongoing item	
3	Mr. Lynch will send the TAG Litigation Area Update presentation to the Navy for distribution to the RAB.	4/5/04	

ATTACHMENT A
ATTENDEES AND AFFILIATIONS
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA

MARCH 1, 2004

(One Page)

ATTENDEES AND AFFILIATIONS
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA

MARCH 1, 2004

<u>Name</u>	<u>Affiliation</u>	<u>Telephone</u>
Beth Byrne	Concord Community Member	(925) 686-4185
Harry Byrne	Concord Community Member	(925) 686-4185
Joanna Canepa	TtEMI	(415) 222-8362
David Cooper	EPA	(415) 972-3237
Kevin Cornish	RAB member	(925) 229-5540
Gregory Glaser	RAB member	(925) 363-5570
David Griffith	RAB member	(925) 671-3427
Carolyn Hunter	TtEMI	(415) 222-8297
Libby Levy	ATSDR	(415) 947-4319
Patrick Lynch	TAG Contractor	(510) 522-2165
Laurent Meillier	SFBRWQCB	(510) 622-2440
Mario Menesini	RAB member	(925) 935-1168
Ray O'Brien	RAB member	(415) 385-9220
Phillip Ramsey	EPA	(415) 972-3006
Igor Skaredoff	RAB member	(925) 229-1371
Steve Tyahla	U.S. Navy, EFA West	(650) 746-7451
Margaret Wallerstein	U.S. Navy, Seal Beach	(565) 626-7838
Mary Lou Williams	RAB Community Co-chair	(925) 685-1415

Notes:

ATDSR	Agency for Toxic Substances and Disease Registry
EFA West	Naval Facilities Engineering Command, Engineering Field Activity West
EPA	U.S. Environmental Protection Agency
RAB	Restoration Advisory Board
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
TAG	Technical Assistance Grant Recipient (Clearwater Revival Company)
TtEMI	Tetra Tech EM Inc.

ATTACHMENT B

AGENDA

**RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA**

MARCH 1, 2004

(One Page)

AGENDA

NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD RESTORATION ADVISORY BOARD MEETING

Monday, March 1, 2004

6:30 p.m. – 8:30 p.m.

Willow Pass Community Center
2748 E. Olivera Rd.
Concord, CA 94519

- | | |
|-------------|--|
| 6:30 – 6:40 | Call to Order <ul style="list-style-type: none">➤ Welcome➤ Introductions➤ Public Comments➤ April Agenda Approval Lead: Community Co-chair |
| 6:40 – 6:50 | Approval of January 5 and February 2, 2004 Meeting Transcript
Review Unresolved Business
Lead: Navy Co-chair |
| 6:50 - 7:30 | Committee Reports/Announcements <ul style="list-style-type: none">➤ RAB Report➤ Remedial Project Managers' Update (Navy/EPA/DTSC/RWQCB)<ul style="list-style-type: none">- Tidal Area Update- ATSDR Update |
| 7:30 – 7:40 | Break |
| 7:40 – 8:30 | TAG Presentation on the Litigation Area – Patrick Lynch, CRC |
| 8:30 | Adjourn |

ATTACHMENT C

**PROPOSED RESTORATION ADVISORY BOARD AGENDAS FOR 2004
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA**

MARCH 1, 2004

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PROPOSED RAB AGENDAS FOR 2004

JANUARY	<ol style="list-style-type: none">1. Fate and Transport Training presented by Tetra Tech.2. RPM - Reports on Site 17, 27 and 29
FEBRUARY	<ol style="list-style-type: none">1. Site 1 ROD Discussion
MARCH	<ol style="list-style-type: none">1. Litigation Area Presentation by Patrick Lynch2. RPM – Tidal Area Update, ATSDR Update
APRIL	<ol style="list-style-type: none">1. Litigation Area Draft FS Report2. RPM – Draft SAP for Site 13 groundwater work
MAY	<ol style="list-style-type: none">1. Draft RI Work Plan for Site 312. Litigation Area Draft Post-Remedial Action Monitoring Plan3. RPM – Site 1 Remedial Design
JUNE	<ol style="list-style-type: none">1. Site 22 Revised Draft Supplemental RI2. RPM - Litigation Area data gaps technical memo
JULY	<ol style="list-style-type: none">1. SWMU's 2, 5,7, 18 Draft Final RI2. Taylor Blvd. Bridge Site 30 Draft FS3. RPM - Draft Annual SMP Amendment
AUGUST	<ol style="list-style-type: none">1. Tidal Area Sites 2, 9, 11 FS2. RPM
SEPTEMBER	<ol style="list-style-type: none">1. Litigation Area Final Monitoring Plan2. Site 1 Draft RA Work Plan3. Site 29 Draft ROD
OCTOBER	<ol style="list-style-type: none">1. Site 27 Draft ROD2. RPM
NOVEMBER	<ol style="list-style-type: none">1. Litigation Area Draft Proposed Plan2. RPM
DECEMBER	No Meeting

NEED TO SCHEDULE:

INRMP PRESENTATION
ATSDR PRESENTATION

ATTACHMENT D

**NAVY REMEDIAL PROJECT MANAGERS UPDATE
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA**

MARCH 1, 2004

(One Page)

NAVY RPM UPDATE
(This will be inserted once the meeting minutes are final)

ATTACHMENT E

**AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY LETTER
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA**

MARCH 1, 2004

(One Page)

ATSDR LETTER PDF
(This will be inserted once the meeting minutes are final)

ATTACHMENT F

**TECHNICAL ASSISTANCE GRANT LITIGATION AREA 5 YEAR ASSESSMENT REPORT
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA**

MARCH 1, 2004

(Nine Pages)

Technical Review
Five-Year Report for Litigation Area
Concord Naval Weapons Station Superfund Site

On behalf of the Concord Naval Weapons Station – Local Reuse Association (CNWS-LRA), Clearwater Revival Company (CRC) completed a review of the Litigation Area Five Year Review Report (5Y Report):

Tetra-Tech “Draft Final Five-Year Periodic Review Assessment for Litigation Area,” prepared for the Naval Weapons Station, Seal Beach Detachment, Concord, October 23.

The 5Y Report was prepared at the conclusion of five years of post-remediation monitoring rather than five years after the initiation of cleanup activities, as required by statute. As a result, issues identified in the 5Y Report could have been addressed earlier.

According to the EPA the purpose of the five-year review is:

... to evaluate the implementation and performance of a remedy in order to determine if the remedy is or will be protective of human health and the environment. Protectiveness is generally defined ... by the risk range and the hazard index (HI). Evaluation of the remedy and the determination of protectiveness should be based on and sufficiently supported by data and observations.¹

That is what is missing from the 5Y Report: - a definition of “protectiveness.” In order for the public to effectively participate in monitoring cleanup actions in the litigation area, two things are required: an agreement on numeric cleanup goals, and a monitoring plan, which effectively demonstrates that these cleanup goals are achieved.

As the 5YR Report concludes:

“The monitoring objectives set forth in the WES monitoring plan and the subsequent revised versions were very general and contained no specific criteria to trigger additional monitoring or further remedial action.” (p. 6-19)

Rather than propose specific criteria and objectives, the 5Y Report proposed to discontinue site-monitoring activities. Given the high concentration of metals that will remain on the wetland surface, monitoring of potential contaminant migration should continue.

The 5Y Report has also recommended three Feasibility Studies to evaluate additional cleanup and Data

¹ US EPA, 2001, “Comprehensive Five-Year Review Guidance,” Office of Emergency and Remedial Response, EPA 540-R-01-007, OSWER No. 9355.7-03B-P, June.

Gap Sampling at five locations. Cleanup goals should be developed for each of these activities.

The 5Y Report compares the results of surface water, and sediment to criteria that are considered “protective.” However, the decisions to evaluate additional cleanup in some areas was based solely on the result of the ecological risk assessments. There is no way to verify the results of the ecological assessment through site monitoring.

CRC’s review identified concerns with the conclusions of the Ecological Risk Assessment. These concerns as summarized below and are followed by comments on soil/sediment contamination, effectiveness of site restoration, organics contamination issues, human health risk assessment, groundwater protection, surface water protection and conclusions.

SITE DESCRIPTION

The Litigation Area has been divided into four Remedial Action Sub-Sites (RASS) for purposes of the Record of Decision:

RASS 1 is a 210 acre wetlands site. RASS 1 contains Site 4 Allied Site A and Site 5 Allied Site B. For purposes of the 5Y Report RASS 1 was subdivided into 12 Units identified as Unit 1 through Unit 11. During 1993-94 soil was removed from nine acres of Unit 8, which is located adjacent to General Chemical (former Allied Signal plant). Unit 5 to the west of Unit 8 also contained 7 acres exceeding cleanup criteria that were not removed.

RASS 2 is a 13 acre site that was previously identified as Site 3 Kiln Site. In the 5Y Report RASS 2 is also referred to as Unit 12.

RASS 3 is a 71 acre site through which Nichols Creek flows. RASS 3 contains Site 25 K-2 Site and Site 26 G-1 (Getty Oil Site). During 1993-94 soil was removed from 4.6 acres along Nichols Creek bed and the RASS 3 Wetlands. RASS 3 is identified as Unit 13 in the 5Y Report.

RASS 4 is 13 acre site. RASS 4 contains Site 6 Coke Piles. Soil was removed from less than 1.0 acre of RASS 4 and no backfilling was performed at the site. Average metal concentrations after remediation exceed pre-remediation levels. RASS 4 is located adjacent to Site 31, a Litigation Area site discovered in 1998. RASS 4 was divided into two Units for the 5Y Report, Unit 14 Surface Soils and Unit 15 Wetlands.

ECOLOGICAL ASSESSMENT

Consider the following quote from the 1997 Litigation Area Qualitative Ecological Assessment (QEA):

IT SHOULD BE NOTED, HOWEVER THAT CLAMS, AMPHIPODS, AND INSECT LARVAE AND OTHER INVERTEBRATES DO NO OCCUR IN THE MOST CONTAMINATED PORTIONS OF THE MAIN SLOUGH IN SOUTHERN RASS 1. (QEA, P. 16-4)

Does this statement indicate that there is no ecological impact because no exposure is occurring, or does this statement indicate that invertebrate populations have been decimated by exposure to site contaminants? Unfortunately, the annual characterization of invertebrates, which would provide an answer to this question, was not performed as proposed by the original post-remediation monitoring program.

The 5Y Report has recommend the evaluation of additional removal actions in sloughs and ditches, rather than address similar levels of contamination on the marsh surface. Removal actions in waterways have the effect of sterilizing the sediment by removing all sediment dwelling organisms. Invertebrate characterization would have been an important indicator of where sediment removal would have limited impact such as “portions of the main slough in Southern RASS 1” identified in the QEA. In other areas, removal of contaminated soil from the marsh surface may be more appropriate to minimize sediment removal.

Risk to Black Rail

The evaluation of additional cleanup in RASS 1’s Unit 7 Ditch and Unit 11 Slough is driven by the risk of exposure to the bird species the Black Rail. CRC’s review indicates that this exposure was underestimated by a factor of three because the “prey ingestion rate” was not correctly calculated (“dry matter” was used instead of “fresh matter”). This error would significantly impact the conclusions of the 5Y Report Baseline Ecological Risk Assessment (BERA).

Bioaccumulation Factors

Bioaccumulation Factors (BAFs) were calculated at different locations by dividing the metal content in tissue (fish, clams, tadpoles and larvae), to the sediment metal concentration where the tissue was captured. A BAF value greater than 1.0 is an indication that metals are bioaccumulating, and ecological impacts could be underestimated by looking solely at sediment concentrations.

Though the metals content in captured tissue was highest in the locations with the most contaminated sediments, the BAFs calculated for the Litigation Area were the highest in the Unit 1 Reference Site. The metals concentrations in sediment in Unit 1 are generally 90 percent lower than more contaminated areas, but the metals concentrations in tissue samples were only 50 percent lower.

These results indicate that BAFs are a poor indicator of ecological impacts in areas of high contamination, and identifies the need to extend cleanup actions to areas with lower levels of sediment contamination to account for bioaccumulation that is occurring there.

WET-DI Test Results

The results of a WET-DI test, a leaching test using deionized water, are used to argue that high

concentrations of metals in sediments are not “bioavailable.” The 5Y Report incorrectly analyzes the results of this test, failing to account for a 10-fold dilution that takes place during the WET analysis. The 5Y Report states less than 5.12 percent of the zinc in a sediment sample, for instance, is leachable or “bioavailable.” A correct calculation would have concluded that up to 51.2 percent of zinc would actually be “bioavailable.” The BERA underestimates this risk.

Pore Water

Another test to identify the “bioavailability” of metals in sediments was analyses of sediment pore water. The 5Y Report also incorrectly analyzes this data. This pore-water analysis measures the partitioning between metals absorbed on soil surfaces and metals dissolved in pore water. The result indicates that pore water exceeds surface water criteria.

SEM-AVS

Simultaneous Extracted Metals (SEMs) and Acid Volatile Sulfides (AVS) analyses are an indicator of the sediment toxicity. If the AVS value exceeds the SEMs value then metals are determined to be “sulfide-bound” and to have no “bioavailability.”

The SEM-AVS analysis does not correlate well for copper, which is a primary site contaminant. The results of total sulfide analysis at other sample locations also show different conditions from the sample set used in the SEM-AVS analysis.

BIOASSAYS RESULTS

The survival rates in bioassays tests did not correlate well with metal contamination. One of the factors that may have affected survival during the bioassays in the Unit 1 Reference Area samples is the higher ammonia content reported in sediments. While this may be the result of natural decomposition of nitrogen containing material, these ammonia concentrations are 10 times higher than other locations and may be an indicator of another contaminant source (e.g. military explosives).

SOIL/SEDIMENT CONTAMINATION

Table 1 contains potential cleanup goals for sediments and soils in the litigation area. For comparison, the first two columns provide the criteria used during the 1993-94 soil removal. Different criteria was used in RASS 3 for cadmium, copper and zinc because RASS 3 was seen as a source of contamination for the RASS 1 wetlands. The third column presents ambient concentrations for bay sediments, and the fourth column lists concentrations where toxic effects are likely, the “effects-range medium” (ER-M). The last column, “protection of the black rail,” lists values recommended by the BERA in the 5Y Report (though, as we indicated previously these values were not calculated correctly).

The San Francisco Bay Regional Water Quality Control Board (RWQCB) has developed a guidance document that contains two criteria for the use of dredge sediments to create wetlands. The first, for the wetlands surface (top three feet of soil), is based on the ambient levels of metals found in San Francisco Bay sediments. The second, for soils deeper than three feet deep, is the ER-M.

TABLE 1 - POTENTIAL SEDIMENT/SOIL CLEANUP CRITERIA

Litigation Area

	1993-94 Remediation Criteria (mg/kg)	1993-94 RASS 3 Remediation Criteria (mg/kg)	Bay Sediment Ambient (mg/kg)	Effects-Range Medium (mg/kg)	Protection Of Black Rail (mg/kg)
ARSENIC	500	500	15.3	70	246.8
CADMIUM	100	12	0.33	9.6	227.5
COPPER	2,500	345	68.1	270	95.9
LEAD	1,000	1,000	43.2	218	90.9
SELENIUM	100	100	0.7	1.4	
ZINC	5,000	2,512	158	410	1,459

Soil and sediment samples results are compared in the 5Y Report to ambient levels, and ER-M values for each of the metals of concern. An average ER-M for six metals referred to as the ER-Mq was also calculated. This information is presented on figures of the litigation area. This information was largely dismissed in identifying areas for evaluation of additional cleanup actions in favor of the results of the BERA.

The 5Y Report contains a study on the rate of sedimentation and concludes that clean sediment is burying more contaminated sediment thereby limiting access to biota. The highest level of contamination reportedly occurred at a depth of 3 inches. This compares to the RWQCB's policy where three feet is used as a conservative depth of biological activity.

An original objective and focus of sediment and soil monitoring was to determine if contaminants were migrating from unremediated areas, or if remediated areas were becoming recontaminated. The 5Y Report makes no conclusions about contaminant migration and proposes no additional monitoring. This is despite the fact that sediments that exceed ambient concentrations will be left on the marsh surface.

EFFECTIVENESS OF THE REMEDY

One of the objectives of the original monitoring plan was to evaluate the impact of active remediation (1993-94 soil removal) on Suisun Bay. The results of this monitoring are not contained in the 5Y Report. This is an important evaluation given the previous argument to leave contamination in place to protect habitat, versus removing contamination to protect inhabitants. Since additional removal of

contaminated soil may be required from portions of the litigation area, it would be efficient to have analysis on the previous impacts to determine if they were significant.

Another concern was the establishment of vegetation and restoration of wetlands habitat in areas of soil removal. The WES Monitoring report also proposed three criteria for vegetation restoration:

- 1) The presence of improper elevation would trigger the addition or removal of soil:
- 2) Plants that were not colonizing at a rate equal to or greater than previous sampling period would trigger evaluation of drainage patterns and resultant salinity; and,
- 3) A third trigger was the existence of human induced interferences (e.g. trespassers with all-terrain vehicles).

The Year 1 monitoring report indicates that the site was graded with less precision than specified. The 5Y Report notes improper elevation for the lack of success in establishment of vegetation at RASS 2. Although trespassers with all-terrain vehicles at RASS 4 were noted in 2001, trespassing on this site continues. Distressed vegetation was observed in RASS 1 in a previously remediated area. Distressed vegetation in RASS 1 will be a focus of data gap sampling.

In addition, the focus of one of three feasibility studies recommended by the 5Y Report will address erosion along Nichol's Creek. Erosion was also noted along the RR Right-of-ways. The 5Y report does not explain whether the erosion problem resulted from the previous soil removals along the creek.

The WES Monitoring Plan noted the need to monitor and protect colonies of special status plant species including a delta tule pea colony at RASS 2. No observations of this plant at RASS 2 are reported in pre-remediation surveys, and no colony has been reestablished in this area according to the 5Y Report. It is unclear if this vegetation loss was the result of active remediation activities or other factors.

ORGANICS CONTAMINATION

Detected contaminants at the site include several pesticides, PCBs and polynuclear aromatic hydrocarbons (PAHs). Based on the results of this sampling these chemicals do not appear to be widely distributed. Detection limits for many of these analyses exceeded risk-screening thresholds. Some risk may exist even in locations where non-detectable values are reported.

PCBs in soils at RASS 3 are to be the focus of one of the five data gap sampling efforts identified in the 5Y Report.

An oil pipeline and a petroleum release were uncovered at the former Getty Oil Site in RASS 3. The 5Y Report refers to a document where the cleanup of this contamination is addressed, but this report is not in the administrative record.

HUMAN HEALTH RISK ASSESSMENT

The 5Y Report contains a Human Health Risk Assessment. This assessment has failed to adequately address human health risks from surface water contamination. Risks from surface water were screened using preliminary remediation goals for drinking water. Sports fisherman and duck hunters may be indirectly exposed to surface water contamination in their catch. An evaluation of the human health impact from contaminated surface water on duck hunters and subsistence fisherfolk should be included in the health assessment.

The risk assessment concluded that site conditions were unprotective under a residential scenario for a majority of the locations sampled in each RASS. Based on the current use of the property, an exposure scenario for a mosquito abatement district worker was developed using an exposure frequency of 30 hours per year. Unacceptable risk under this limited exposure scenario was identified in RASS 1, the principle site where mosquito control activities would take place.

It is clear that the remediation and monitoring that was conducted at the site resulted in workers being exposed to site conditions for over 30 hours per year, and that access to the litigation area sites should be strictly controlled to individuals who are properly trained in hazardous waste site operation. The photo of the inspection team in the 5Y Report, however, shows a regulator with inappropriate attire for accessing this site, indicating these strict controls are not in place.

GROUNDWATER

The 5Y Report does not identify the location of an industrial supply well used by General Chemical that is located in the vicinity of the Litigation Area.

The 5Y Report does not identify the beneficial uses of local groundwater. As a result the criteria for protecting groundwater quality are not proposed.

The monitoring of groundwater proposed as part of the original monitoring plan was not conducted and on-site wells have not been sampled since 1996. Three of the five data gap sampling efforts will address deficiencies in groundwater characterization. All 22 groundwater wells in the litigation area are to be sampled as one of the five data gap sampling efforts identified in the 5Y Report.

Two Data-gap Sampling projects will investigate the potential migration of groundwater contamination from neighboring properties. Contaminated groundwater from General Chemical is suspected of seeping into the remediated area of RASS 1 and “distressing” the vegetation. Chemical Pigment Company, (where Cal-EPA is currently conducting an emergency removal action on behalf of the bankrupt corporation), is suspected of contaminating groundwater in RASS 3 and surface water in Nichol’s Creek.

The significant contamination is also found in groundwater at RASS 2. The well 2AG09 is reportedly tidally influenced with a level changing by 0.4 feet with each tidal cycle. Sampling shows groundwater contains up to 34,000 µg/L of zinc. Though this groundwater contamination is apparently migrating into RASS 1 it is not being investigated in a Data Gap Sampling project.

SURFACE WATER

A comparison of surface water to ambient water quality criteria was conducted in the 1997 Qualitative Ecological Assessments (QEA). The QEA reported surface water hazard index (HI) values over 300, where a value less than 1.0 is considered safe. These analysis were based on total metal concentrations.

At the end of the five-year monitoring period a federal law was created to address minimum flows and water quality requirements in the Delta. The limits proposed by this California Toxic's Rule were based on dissolved concentrations rather than total metals concentrations reported for most surface water analyses at the litigation area. The limited surface water analyses for dissolved metals indicate copper may exceed the criteria.

CONCLUSIONS

The 5Y Report needs to propose cleanup goals that are protective of human health and the environment, including cross-media impacts. The protectiveness of existing and future cleanup action should be demonstrated through a monitoring plan that confirms cleanup goals are attained.

The calculations in the Baseline Ecological Risk Assessment (BERA) in the 5Y Report should be verified.

The 5Y Report should document the impacts of the active remediation conducted in 1993-94 so an objective analysis of the impact of future cleanup actions can be conducted.

The cleanup of RASS 1 is not protective. In addition to Feasibility Studies for Unit 7 and Unit 11, cleanup alternatives should be evaluated for Unit 1, Unit 5, Unit 6 and Unit 10 to determine if the no further action is appropriate in these areas of contamination.

The cleanup of RASS 2 is not protective. High levels of zinc and tidally influenced groundwater indicate significant contamination remains at depth at this site. The potential migration of this contamination from RASS 2 to RASS 1 due to tidal action is not addressed in the 5Y Report.

The cleanup of RASS 3 is not protective. In addition to erosion and off-site sources, significant zinc contamination remains in the wetlands or pond at RASS 3. The potential migration of this contamination from RASS 3 to RASS 1 due to tidal action is not addressed.

The cleanup of RASS 4 is not protective. Future investigation and cleanup at RASS 4 should be considered as part of Site 31. Site 31 contained many of the same contaminants as RASS 4 though the concentrations were generally 10 times higher. Surface water run-off from Site 31 may have contributed contamination to RASS 4. One of five data gap sampling efforts identified by the 5Y Report will identify a suspicious material, "lithified earth," observed during a site inspection. This material is similar to the materials found at Site 31.

ATTACHMENT G

LITIGATION AREA TECHNICAL ASSISTANCE GRANT PRESENTATION
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA
MARCH 1, 2004

(One Page)

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Litigation Area 5 Year Review TAG Presentation
(This will be inserted once the meeting minutes are final)